

REMARKS**1. Claim objections**5 Claim 7

Claim 7 was objected to on the grounds that the line 'comprising a pre-amplifier' should be 'comprising providing a pre-amplifier'.

10 Response:

Claim 7 has been amended to include the word 'providing'.

2. Claim rejections – 35 U.S.C. 102(b) and 35 U.S.C. 102(e)

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Claims 1, 3-6 & 8-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Matsui et al, and claims 1, 2, 4-7, 9 & 10 are rejected under 35 U.S.C. 102(e) as being anticipated by Tanishima.

20 Response:

Claim 1

25 Claim 1 is amended to include limitations in response to the rejections made by the examiner. These limitations are fully supported by the specification paragraph [0014]. In addition, claim 3 is accordingly amended due to amendments to the claim 1. No new matter is introduced.

30 In claim 1 the optical disc system described features an optical disc rotating at constant angular velocity (CAV) during data recording. However, Matsui et al. discloses that a spindle control using the spindle motor 120 is performed if the reproduced signal cannot normally be read because of start of the operation or

deviation of focusing and the track servo (column 18, lines 35-38). Therefore, according to Fig.6, steps 128-131 are then performed to control the spindle motor 120. As Matsui et al. discloses, steps 128-131 are used for controlling the disk 104 to rotate at CAV, which prevents the disk 104 from excessive rotation, interruption and reverse rotation when no reproduced signal is supplied in a case where focusing or the track servo is deviated (column 19, lines 33-38). So Matsui et al. discloses that **the disk 104 is rotated at CAV when focusing or the track servo is deviated** (column 19, line 67 to column 20, line 2). Further, Matsui et al. discloses that if the servo is enabled and the synchronizing signals are correct, steps 133 and 135 are performed for controlling the disk 104 to rotate at CLV (column 19, line 39 to column 21, line 12). It is well known that the servo must be turned on for correctly recording data onto the disk. Therefore, Matsui et al. teaches that the disk 104 is rotated at CLV during data recording. That is, Matsui et al. fails to teach rotating the disk at CAV for recording data. Amended claim 1 is capable of overcoming the rejection under 35 U.S.C. 102(b).

The amended claim 1 claims a circuit used for generating a control signal to rotate the disc at the constant angular velocity, wherein the circuit **does not utilize the wobble signal** when generating the control signal. Tanishima discloses an optical disc system for recording data to an optical disc rotating at CAV. In this cited reference, however, the speed of the spindle motor is controlled based on a wobble signal received from the pickup device. In the present invention, the speed of the spindle motor is controlled based on pulses generated by a frequency generator connected to the spindle motor. The apparatus, therefore, is inherently different. In short, amended claim 1 is capable of overcoming the rejection under 35 U.S.C. 102(e).

Matsui et al. discloses rotating the disc under CAV according to the rotation of the spindle motor (column 18, lines 46-56). However, as mentioned above, Matsui et al. discloses rotating the disc under CAV if the servo control is not activated or the signal synchronization fails. Therefore, **Matsui et al. fails to teach or suggest rotating the disc under CAV via the disclosed spindle control for recording data onto the disc.** In addition, Tanishima discloses utilizing the wobble signal to generate the control signal for the spindle motor. However, **Tanishima fails to teach or**

suggest directly utilizing the rotation of the spindle motor to generate the control signal for driving the spindle motor to rotate the disc under CAV during data recording.

5 Furthermore, Matsui explicitly teaches that when the spindle motor is controlled by the wobble signal, the spindle motor is not rotating at CAV. The optical disk only rotates at CAV when **no reproduced signal is supplied** (column 19, lines 31 – 38.) Moreover, Matsui teaches that the spindle motor control using the spindle motor will fail if the input signal is a wobble signal; (column 21, lines 61 – 63, “the recording
10 operation is inhibited because the wobble signal cannot be read in a state where the spindle motor is controlled by the CAV method.”) Therefore, the prior art neither teaches nor suggests the combination of using a spindle motor controlled by a pulse generator for recording data at CAV. There is no motivation for a skilled person to modify Tanishima’s teachings in view of Matsui’s teachings. In short, the claimed
15 spindle control of the present invention is not obvious for a person of ordinary skill in the art.

Reconsideration of the amended claim 1 is politely requested. Claims 2-5 are dependant on the amended claim 1 and should be allowed if the amended claim 1 is
20 found allowable.

Claim 6

Claim 6 is amended to include limitations in response to the rejections made by
25 the examiner. These limitations are fully supported by the specification paragraph [0014]. In addition, claim 8 is accordingly amended due to amendments to the claim 6. No new matter is introduced.

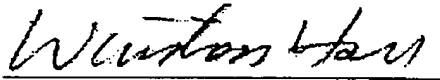
Claim 6 is a method claim describing the operation of the optical disc system in
30 claim 1. If amended claim 1 is found allowable, amended claim 6, therefore, is allowable. Reconsideration of the amended claim 6 is politely requested. Claims 7-10 are dependant on the amended claim 6 and should be allowed if the amended claim 6

is found allowable.

Applicants hereby request allowance of the application.

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Sincerely,



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